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Notice of Allowability

Application No.

10/530,967

Examiner

Michael W. Talbot

Applicant(s)

BERGER ET AL.

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 02 March 2007.
2. ☒ The allowed claim(s) is/are 21-27 and 29-31.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Monica S. Carter
MONICA CARTER
 SUPERVISORY PATENT EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Werner H. Stermer on Thursday, 03 May 2007.

The application has been amended as follows:

Claims:

(a) The dependency within claim 29 has been changed to read from claim 21, in lieu of claim 28, as claim 28 has been deleted in its entirety.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance:

Claims 21-27 and 29-31 are allowed.

Claim 21 is the sole independent claim.

3. Regarding claim 21, the prior art of record fails to anticipate or make obvious a cutting tool comprising (1) "a front cutting edge being disposed to cut as far as said drill axis and enclosing therewith an angle of less than 90°", (2) "an adjacent straight lateral cutting edge enclosing an angle of more than 90°" and (3) "a rear cutting edge running substantially transversely with respect to said drill axis", solely or in combination with, a cutting tool having a drill shank, a cutting head, and a lateral cutting edge for cutting a wall of a bore.

Salm et al. '988 is the closest art of record.

Salm et al. '988 shows in Figures 1 and 2 a cutting tool comprising a drill shank (2) defining a drill axis (26), an end, and an interchangeable cutting head (1) configured for

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mounting (via hole 21) and being disposed at said end having a straight front face (8) running substantially transversely with respect to the drill axis and enclosing therewith an angle less than 90° (col. 7, lines 2-8). Salm et al. '988 further shows the cutting head having an adjacent straight lateral cutting edge (7,12) for cutting the wall of a bore and enclosing an angle slightly more than 90° with a perpendicular to said drill axis (edge 7 slanted outwardly away from end of drill as viewed in Fig. 1) and merging into a straight rear face (9) running substantially transversely with respect to said drill axis. Salm et al. '988 further shows the lateral cutting edge being formed on a section (4) of said cutting head projecting from said drill shank by a height (approximately 30° as viewed in Fig. 1) having a value between 5% and 40% of a drill diameter, a width (approximately 30° as viewed in Fig. 1) having a value between 5% and 40% of the drill diameter, and a ratio of height/width (1:1 as viewed in Fig. 1) within a range from 1:0.7 to 1:1.3. Salm et al. '988 further shows the rear face enclosing an angle less than 90° with said drill axis (edge 9 slanted downward toward end of drill as viewed in Fig. 1 resulting in an approximate 89° angle with said drill axis).

Salm et al. '988 lacks a cutting tool having 1) "a front cutting edge being disposed to cut as far as said drill axis and enclosing therewith an angle of less than 90° ", (2) "an adjacent straight lateral cutting edge enclosing an angle of more than 90° " and (3) "a rear cutting edge running substantially transversely with respect to said drill axis".

Although it is well known to have a cutting tool with three cutting edges defined as a front cutting edge for boring into a material, a lateral cutting edge for cutting a wall of a bore, and a rear cutting edge for cutting an undercut within a bore, there is no teaching in the prior art of record that would, reasonably and absent impermissible hindsight, motivate one having ordinary skill in the art to so modify the teachings of Salm et al. '988, noting that in Salm et al. '988, the cutting head disclosed only has a straight lateral cutting edge (7,12) for cutting a wall. The front

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cutting face (8,17) and the rear surface (9) are not cutting edges, but rather surfaces forming lateral cutting edge (12), and therefore are not capable of boring a hole in a material or forming an undercut within a bore. Thus, for at least the foregoing reasons, the prior art of record neither anticipates nor rendered obvious the present invention as set forth in independent claim 21.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mrs. Monica S. Carter, may be reached at 571-272-4475.

In order to reduce pendency and avoid potential delays, group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3722 at the top of your cover sheet.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private

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PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MWT
Examiner
3 May 2007


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SUPERVISORY PATENT EXAMINER